

**ADDENDUM #1  
EAST INTERCEPTOR SANITARY SEWER OVERFLOW STORAGE FACILITY – PHASE 3  
CITY OF DULUTH  
PROJECT 0891SN  
BID NUMBER 10-0299  
JUNE 10, 2010**

**NOTICE**

Page 1 of 6

This Addendum is issued to modify, explain or correct the original drawings, specifications and/or previous addendums and is hereby made a part of the Contract Documents. Please note receipt of this Addendum on the Request for Bid. **THE BID DATE HAS CHANGED TO JUNE 23, 2010.** Bid time remains at 2:00 PM local time with the public bid opening immediately following in room 106A of City Hall.

**PROJECT MANUAL**

DIVISION 0

**REQUEST FOR BIDS**

**DELETE** requirements for Buy American compliance as located on page 4, note 4 of the Request for Bid and any other references within the Project Manual.

**SPECIAL PROVISIONS**

**CHANGE** all references of the US Department of Labor (DOL) Prevailing Wage Rates for Building and Heavy construction types dated May 7, 2010 to the more recent US DOL Prevailing Wage Rates for Building and Heavy construction types dated June 4, 2010.

**INCORPORATE** the June 4, 2010 wage rates that are enclosed with this addendum.

DIVISION 1

Section 01 50 00 – Temporary Facilities and Controls

**ADD** the following Part 3, Section 3.07 B to this section:

- “B. Water may be provided from the City of Duluth at existing water hydrants with the installation of a water meter. Application for a temporary water meter can be obtained at Comfort Systems located at 520 Garfield Avenue. Current water usage rates are described in the following Table 1.”

Table 1: Temporary City Water Usage Rate per 100 Cubic Feet	
Base charge for hydrant meter	\$100.00
First 4,000 cubic feet, per 100 cubic feet	\$2.56
Next 96,000 cubic feet, per 100 cubic feet	\$1.67
Next 900,000 cubic feet, per 100 cubic feet	\$1.39
Over 1,000,000 cubic feet, per 100 cubic feet	\$1.15

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

Section 07 13 00 – Sheet Waterproofing

Page 07 13 00-3, Paragraph 2.01:

**ADD** “D. Poly-Wall, Self-Adhering Sheet Membrane and related accessories.”

Section 07 27 26 – Fluid-Applied Membrane Air/Vapor Retarder

Page 07 27 26-5, Paragraph 2.01:

**ADD** “B. Acceptable equal systems:  
1. Poly-Wall, Poly-Wall AirLock Flex, at 60 mil thickness on masonry walls, and ancillary products.”

DIVISION 08 – DOORS AND WINDOWS

Section 08 91 19 – Fixed Wall Louvers

Page 08 91 19-2, paragraph 2.01, C., 1.:

**OMIT** Paragraph in its entirety.

Page 08 91 19-2, paragraph 2.01, C., 8.:

**OMIT** Paragraph in its entirety.

EAST INTERCEPTOR SANITARY SEWER OVERFLOW  
STORAGE FACILITY – PHASE 3  
CITY OF DULUTH

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Page 08 91 19-2, Paragraph 2.01, C.:

**ADD** “1. Louvers shall be stationary type with horizontal rain resistant system blades positioned on 1-7/8 inch centers within a 5-inch deep frame.

**ADD** “8. Louvers shall carry a Class A Water Penetration Classification based on a ventilation core velocity of 689 feet per minute at a rainfall rate of 3-inches per hour and 29 mile per hour simulated wind velocity. Louvers shall carry a Class B Water Penetration Classification based on a ventilation core velocity of 689 feet per minute at a rainfall rate of 8-inches per hour and 50 mile per hour simulated wind velocity.”

Page 08 91 19-2, Paragraph 2.01, E.:

**ADD** “American Warming and Ventilation Model LE-53” to list of acceptable manufacturers.

DIVISION 22 – PLUMBING

Section 22 40 00 – Plumbing Fixtures

Page 22 40 00-2, paragraph 2.02, G.:

**ADD** “Zurn” to approved manufacturers.

Page 22 40 00-2, Paragraph 2.02, H.:

**ADD** “Kindred” to approved manufacturers.

Page 22 40 00-2, Paragraph 2.02, J.:

**ADD** “Aquabath” to approved manufacturers.

Page 22 40 00-2, Paragraph 2.02, L.:

**ADD** “Acorn Safety” to approved manufacturers.

DIVISION 23 – HEATING, VENTILATING, AND AIR CONDITIONING

Section 23 09 24 – Gas Detection and Control System

Page 23 55 16-2, Paragraph 2.01:

**ADD** “B. Acceptable Manufacturer: Critical Environment.”

Section 23 55 16 – Indirect Fired Heating and Ventilating Units

Page 23 55 16-2, Paragraph 2.01, A.:

**ADD** “Titan” to approved manufacturers.

DIVISION 44 – POLLUTION CONTROL EQUIPMENT

**ADD** the attached Specification Section 44 42 23.20 FRP WEIRES AND WEIR PLATES to the Project Manual.

**PROJECT DRAWINGS**

Drawing S-16

**ADD** the following plan note 11.

- “11. Contractor shall provide pedestrian detour signage indicating an alternate route from the Lake Place Park to Superior Street when sidewalks are closed do to utility installations.”

All Structural Drawings:

**CHANGE** date in Steven W. Jantzen signature block to 5-14-10.

Drawing S-1

Under note D2, Gravity Live Loads:

**DELETE** items 1 through 4.

**ADD:** “1. STAIRS AND LANDINGS 100 PSF  
2. PLANTER AREA BEHIND RETAINING WALLS 200 PSF”

**CHANGE** note F3, Equivalent Fluid Pressure to:

“THE RETAINING WALLS HAVE BEEN DESIGNED FOR AN EQUIVALENT FLUID PRESSURE OF 100 PCF FOR PLANTER SOIL AND 40 PCF FOR ENGINEERED FILL.”

**CHANGE** note F4.4 to:

“FILL MATERIAL SHALL BE AS SHOWN ON DRAWINGS S-9 AND S-11.”

**DELETE** note C6.

Drawing S-3

Section C:

**CHANGE** note “EXTERNAL ...PLACEMENT” to “EXTERNAL THREADED DOWEL BAR SPLICE IN STAIR WALL AND BASE SLAB CONCRETE PLACEMENT.”

Drawing S-5

1. Top Slab Plan:

**DELETE** the six 6"x6"x3/8" angles shown dashed on left side of structure.

**ADD** six ½"thick x16" wide steel plates. Locate centerlines of plates 12" from each corner of the removable slab . (There will be no plates in the joint between the removable slab and the non-removable slab).

**ADD** note pointing to one of the plates thus: “SEE KEY NOTE 15 ON S-6 (TYP.)”. Key Note 2 on west side of structure should point to intersection of pipe and wall.

2. Bottom Slab Plan:

**CHANGE** Vertical reinforcing shown as #6@10"o.c., EW,EF to #5@8"o.c., EW,EF.

**CHANGE** sealant size in Key Note 9 to 1" DIAMETER.

**ADD** in Key Note 11:

“LIFTING PLATES AND COIL BOLTS SHALL BE TURNED OVER TO OWNER.”

Drawing S-6

**REPLACE** drawing S-6 in its entirety with the attached S-6 drawing.

Drawing S-8

**REPLACE** drawing S-8 in its entirety with the attached S-8 drawing.

Drawing S-9

**REPLACE** drawing S-9 in its entirety with the attached S-9 drawing.

Drawing S-10

Partial Plan -1:

**CHANGE** note to “AT INTERSECTIONS OF RETAINING WALL FOOTINGS WHERE REINFORCING IS DOUBLED UP, PRESERVE THE REINFORCING PERPENDICULAR TO THE RETAINING WALL AND DELETE THE REINFORCING PARALLEL TO THE RETAINING WALL.”

**DELETE** Key Note 2 indicator at Proposed Restroom Facility.

**DELETE** Key Note 3 indicator under Section 3 arrow.

Partial Elevation: Align tops of footings of retaining walls to all be at Elevation 609.33.

**DELETE** Key Note 2 indicator at Proposed Restroom Facility.

**ADD** Key Note 1 indicator to Tank expansion joint beyond east end of retaining walls.

Key Note 2:

**ADD** “SEE FLASHING DETAIL C/S-11 FOR TOP OF WALL.”

Key Note 3:

**DELETE** all notes except first sentence.

**ADD** “SEE FLASHING DETAILS A&B/S-11 FOR TOP OF WALL.”

Drawing S-11

**REPLACE** drawing S-11 in its entirety with the attached S-11 drawing.

END OF ADDENDUM

Construction Type: **Building** County: St Louis County in Minnesota.**BUILDING CONSTRUCTION PROJECTS** (does not include single family homes or apartments up to and including 4 stories).

Mod Nbr	Publ Date	Mod Nbr	Publ Date	Mod Nbr	Publ Date	Mod Nbr	Publ Date	Mod Nbr	Publ Date	Mod Nbr	Publ Date
0	03/12/2010										
1	05/07/2010										
2	06/04/2010										

Rate FringeASBE0049-007 06/01/2009 **ASBESTOS WORKER/HEAT & FROST INSULATOR** (includes the application of all insulating materials, protective coverings, coatings & finishes to all types of mechanical systems) \$ 35.81 13.80BOIL0647-007 07/01/2009 **Boilermaker** \$ 33.84 18.53BRMN0001-050 05/01/2009 **ST LOUIS CO** (remaining northern part) Tile Setter \$ 30.58 17.95BRMN0003-008 05/01/2009 **ST. LOUIS CO** (city of Duluth and south of a line between Townships #54 & #55, 2 miles north of Cotton) Bricklayer \$ 30.29 17.95Rate FringeBRMN0003-011 05/01/2008 **ST. LOUIS CO** (city of Duluth and south of Township Line 55) Tile Setter \$ 24.13 17.38\* BRMN0016-002 05/01/2009 **ST. LOUIS CO** (north of a line between Townships #54 & #55, 2 miles north of Cotton) Bricklayer \$ 30.04 18.20CARP0361-012 08/10/2009 **DULUTH AREA** including Alborn, Arnold, Bartlett, Birch, Brookstone, Canyon, Clinton, Culver, Floodwood, Gowan, Island, Kelsey, Lakewood, Meadowlands, Munger, Palmers, Payne, Prasit, Shaw, Taft)Rate Fringe**CARPENTER** (including Acoustical Installation, Drywall Hanging, Form Work & Overhead Door Installation) \$ 26.40 13.80Rate FringeCARP0596-005 06/01/2009 **Soft Floor Layer** \$ 28.91 12.63CARP0606-001 06/01/2009 Excluding Duluth Area**CARPENTER** (including Acoustical Installation, Drywall Hanging, Form Work & Overhead Door Installation) \$ 25.75 12.69ELEC0242-012 05/31/2009 **ST. LOUIS CO** (south part bounded on the north by the north line of Kelsey Township extended east & west) Electrician \$ 31.24 63.5%\* ELEC0294-006 06/01/2010 **ST. LOUIS** (north part bounded on the south by the south line of Ellsburg Township, extended east & west) Electrician \$ 33.62 58.75%ENGI0049-045 05/01/2009 **Power Equipment Operator**

GRP 1 \$ 34.64 15.25	GRP 3 \$ 32.89 15.25	GRP 5 \$ 32.38 15.25	GRP 7 \$ 29.75 15.25
GRP 2 \$ 34.30 15.25	GRP 4 \$ 32.55 15.25	GRP 6 \$ 30.87 15.25	GRP 8 \$ 27.74 15.25

**Power Equipment Operator Classifications:****GROUP 1:** Truck & Crawler Crane with 200' of Boom & over, including Jib (\$.50 premium with 300' of Boom & over, including jib); & Tower Crane 250' & over.**GROUP 2:** Truck & Crawler Crane with 150' of Boom, up to but not including 200' of Boom, including Jib; & Tower Crane 200' & over.**GROUP 3:** Traveling Tower Crane; Truck & Crawler Crane, up to but not including 150' of Boom, including Jib; Tower Crane (Stationary) up to 200'; All-Terrain Vehicle Crane, Boom Truck over 100 ft.**GROUP 4:** Backhoe/Track/Trackhoe, Hoist (3 drums or more); Overhead Crane (inside building perimeter), Excavator.**GROUP 5:** Asphalt Spreader, Bulldozer, Curb Machine, Drill, Forklift, Compressor 450 CFM or over (2 or more machines); Boom Truck up to 100 ft, Loader over 1 cu yd, Hoist (1 or 2 drums); Mechanic; Milling Machine, Roller, Scraper, Tractor over D2.**GROUP 6:** Bobcat/Skid Loader, Loader up to 1 cu. yd., Tractor D2 or similar size.**GROUP 7:** Compressor 600 CFM or over, Crane Oiler.**GROUP 8:** Oiler.Rate FringeIRON0512-018 05/01/2009 **Ironworker, Ornamental, Reinforcing & Structural** \$ 29.76 19.50Rate FringeLABO1091-011 01/01/2009 **LABORER (ASBESTOS ABATEMENT)** Removal From Floors, Walls & Ceilings \$ 27.65 11.11LABO1091-013 05/01/2009 **ST. LOUIS CO** (south of T 55 N)**Laborers:**

GRP 1 \$ 23.45 11.24	GRP 2 \$ 23.60 11.24	GRP 3 \$ 23.85 11.24	GRP 4 \$ 24.15 11.24
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**LABORER CLASSIFICATIONS:****GRP 1:** Common or General, Asphalt Shoveler, Carpenter Tender, Form Stripping**GRP 2:** Vibrating Plate**GRP 3:** Pipelayer**GRP 4:** Mason Tender (Brick, Cement/Concrete)LABO1097-008 05/01/2009 **ST. LOUIS CO** (north of T 55N) Laborer: GRP 1 \$ 22.91 11.87 GRP 2 \$ 23.31 11.87**LABORERS CLASSIFICATIONS:** GRP 1 - Common or General, Asphalt Shoveler, Carpenter Tender, Form Stripping, Mason Tender (Brick, Cement/Concrete)

GRP 2 - Pipelayer, Vibrating Plate

\* PAIN0106-001 05/01/2010 **Glazier** \$ 24.85 14.60 FOOTNOTE: 1 to 4 yrs svc - 1 wk pd vac; 5 to 11 yrs - 2 wks pd vac; 11 yrs or more - 3 wks pd vac

* PAIN0106-013 05/01/2010	<u>Rate</u>	<u>Fringe</u>
Painters: New: Brush, Roller	\$ 27.30	14.08
Spray, Drywall Finisher/Taper	\$ 27.90	14.08
Repaint:		
Brush, Roller	\$ 25.80	14.08
Spray, Drywall Finisher/Taper	\$ 26.40	14.08

PLAS0633-024 10/01/2009 ST. LOUIS CO (north of White Face River)	Cement Mason/Concrete Finisher	<u>Rate</u>	<u>Fringe</u>
		\$ 24.31	14.34

PLAS0633-059 05/01/2009 CARLTON & ST. LOUIS COs (south of T 55N)	Cement Mason/Concrete Finisher	\$ 27.04	15.45
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* PLUM0011-019 05/04/2009 ST. LOUIS CO (south of an east-west line drawn through Cotton)	Plumber/Pipefitter	\$ 34.45	15.50
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* PLUM0589-007 05/01/2010 ST. LOUIS (north of an east-west line drawn through Cotton)	Plumber/Pipefitter	\$ 35.74	15.77
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ROOF0096-024 07/06/2009 ST. LOUIS CO (south of Hwy 16, excluding city of Forbes)	Roofer	\$ 29.20	13.20
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* ROOF0096-025 05/01/2010 ST. LOUIS (remaining northern two-thirds)	Roofer	\$ 26.50	9.95
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SHEE0010-045 05/01/2009 ST. LOUIS CO (southern one-third)	SHEET METAL WORKER (including HVAC Duct Installation)	<u>Rate</u>	<u>Fringe</u>
		\$ 31.61	16.52

SHEE0010-056 05/01/2008 ST. LOUIS CO (northern two-thirds)	SHEET METAL WORKER (including HVAC Duct Installation)	\$ 29.99	16.08
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SUMN2009-050 07/27/2009	<u>Rate</u>	<u>Fringe</u>
LABORER: Landscape	\$ 12.88	4.61
TRUCK DRIVER: Dump Truck	\$ 19.15	5.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

#### WAGE DETERMINATION APPEALS PROCESS

- 1) Has there been an initial decision in the matter? This can be: \* an existing published wage determination \* a survey underlying a wage determination \* a Wage and Hour Division letter setting forth a position on a wage determination matter \* a conformance (additional classification and rate) ruling  
On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2. and 3) should be followed.  
With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations.  
Write to: Branch of Construction Wage Determinations Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210
- 2) If the answer to the question in 1) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to: Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210  
The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.
- 3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board).  
Write to: Administrative Review Board U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210
- 4) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION



Construction Type: **Heavy** County: St Louis County in Minnesota.**HEAVY CONSTRUCTION PROJECTS**

Mod Nbr	Publ Date	Mod Nbr	Publ Date	Mod Nbr	Publ Date	Mod Nbr	Publ Date	Mod Nbr	Publ Date	Mod Nbr	Publ Date
0	03/12/2010										
1	05/07/2010										
2	06/04/2010										

BOIL0647-004 07/01/2009 Boilermaker \$ 33.84 18.53

CARP0361-020 05/01/2009 ST LOUIS CO (southern 1/3 including Cotton, Floodwood, Fond Du Lac, and Proctor)  
CARPENTER (including Form Work) \$ 30.12 14.65

	Rate	Fringe
CARP0361-021 05/01/2009 ST LOUIS (Duluth) Carpenter (including Form Work)	\$ 30.52	14.65

CARP0606-010 05/01/2009 ST LOUIS CO (northeast 2/3 including Cook, Cusson, Ely, and western part including Chisholm, Greaney, and Orr)  
Carpenter (including Form Work) \$ 30.12 14.65ELEC0242-012 05/31/2009 ST. LOUIS (south part bounded on the north by the north line of Kelsey Township extended east & west)  
Electrician \$ 31.24 63.5%\* ELEC0294-006 06/01/2010 ST. LOUIS (north part bounded on the south by the south line of Ellsburg Township, extended east & west)  
Electrician \$ 33.62 58.75%

ENGI0049-064 05/01/2009 Power Equipment Operator

Grp 2 \$ 30.57 15.25 Grp 3 \$ 30.02 15.25 Grp 4 \$ 29.72 15.25 Grp 5 \$ 26.68 15.25 Grp 6 \$ 25.47 15.25

Power Equipment Operator Classifications:

GRP 2: Crane with over 135' Boom, excluding jib; Dragline &amp; Hydraulic Backhoe with shovel-type controls, 3 cubic yards and over; Grader/Blade finishing earthwork and bituminous.

GRP 3: Dragline &amp; Hydraulic Backhoe with shovel-type controls up to 3 cubic yards; Loader 5 cu yd and over; Mechanic; Tandem Scraper; Truck Crane; Crawler Crane

GRP 4: Bituminous Roller 8 tons &amp; over; Crusher/Crushing Plant; Drill Rig; Elevating Grader; Loader over 1 cu yd; Grader; Pump; Scraper up; to 32 cu yd; Farm Tractor with Backhoe attachment; Skid Steer Loader over 1 cu yd with Backhoe attachment; Bulldozer over 50 hp.

GRP 5: Bituminous Roller under 8 tons; Bituminous Rubber Tire Roller; Loader up to 1 cu yd; Bulldozer 50 hp or less.

GRP 6: Oiler; Self-Propelled Vibrating Packer 35 hp and over.

CRANE OVER 135' BOOM, EXCLUDING JIB - \$ .25 PREMIUM; CRANE OVER 200' BOOM, EXCLUDING JIB - \$ .50 PREMIUM

UNDERGROUND WORK: TUNNELS, SHAFTS, ETC. - \$ .25 PREMIUM UNDER AIR PRESSURE - \$ .50 PREMIUM

HAZARDOUS WASTE PROJECTS (PPE Required): LEVEL A - \$1.25 PREMIUM LEVEL B - \$ .90 PREMIUM LEVEL C - \$ .60 PREMIUM

	Rate	Fringe
IRON0512-028 05/01/2009 Ironworker, Reinforcing & Structural	\$ 29.76	19.50

	Rate	Fringe
LABO0132-038 05/01/2009 LABORER Common or General (Natural Gas Pipeline only)	\$ 16.70	10.49

LABO0563-034 05/01/2009 ST LOUIS CO (south of T. 55 N)

Laborers	Rate	Fringe
(1) Common or General	\$ 27.14	11.54
(2) Mason Tender Cement/Concrete	\$ 27.34	11.54
(6) Pipe Layer	\$ 29.14	11.54

	Rate	Fringe
LABO0563-035 05/01/2009 ST LOUIS CO (north of T. 55 N) Laborers: (1) Common or General	\$ 26.10	12.58
(2) Mason Tender Cement/Concrete	\$ 26.30	12.58
(6) Pipe Layer	\$ 28.10	12.58

PLAS0633-036 05/01/2008 ST. LOUIS CO (north of T 55N) Cement Mason/Concrete Finisher \$ 25.40 12.45

PLAS0633-039 05/01/2009 ST. LOUIS CO (south of T 55N) Cement Mason/Concrete Finisher \$ 29.63 15.45

	Rate	Fringe
SUMN2009-072 09/28/2009 Laborer: Landscape	\$ 12.88	4.61

	Rate	Fringe
* TEAM0160-018 05/01/2010 TRUCK DRIVER (DUMP)		
(1) Articulated Dump Truck	\$ 26.60	13.15
(2) 3 Axles/4 Axles; 5 Axles receive \$0.30 additional per hour	\$ 26.05	13.15
(3) Tandem Axles; & Single Axles	\$ 25.95	13.15

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

**WAGE DETERMINATION APPEALS PROCESS**1) Has there been an initial decision in the matter? This can be: \* an existing published wage determination \* a survey underlying a wage determination  
\* a Wage and Hour Division letter setting forth a position on a wage determination matter \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2. and 3) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations.

Write to: Branch of Construction Wage Determinations Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

2) If the answer to the question in 1) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to: Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board).

Write to: Administrative Review Board U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

4) All decisions by the Administrative Review Board are final.

===== END OF GENERAL DECISION

SECTION 44 42 23.20

FRP WEIRS AND WEIR PLATES

A. Applicable provisions of Division 01 shall govern the work of this section.

1.02 APPLICABLE PUBLICATIONS

A. The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by the reference thereto.

1. American Society for Testing and Materials (ASTM), Annual Book of ASTM Standards:

- a. ASTM C581 - Chemical Resistance of Thermosetting Resins (used in Glass-Fiber-Reinforced Structures intended for Liquid Service), Practice, Current Edition.
- b. ASTM D256 - Test Methods for Impact Resistance of Plastics and Electrical Insulating Materials, Current Edition.
- c. ASTM D570 - Test Method for Water Absorption of Plastics, Current Edition.
- d. ASTM D638 - Test Methods for Tensile Properties of Plastics, Current Edition.
- e. ASTM D790 - Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials, Current Edition.
- f. ASTM D2343 - Tensile properties of Glass Fiber Strands/Yarns/Roving of Reinforced Plastics, Test, Current Edition.
- g. ASTM D2583 - Indentation Hardness of Rigid Plastics, by Barcol Impressor, Test, Current Edition.
- h. ASTM D3029 - Impact Resistance of Flat Rigid Plastic Specimens, by TUP (Falling Weight), Test, Current Edition.
- i. ASTM D3917 - Pultruded Glass-Reinforced Rods/Bars/Shapes, Dimensional Tolerances, Specifications, Current Edition.
- j. ASTM D4507 - Thermoplastic Polyester (TPES) Molding/Extrusion Materials, Specifications, Current Edition.

1.03 DESCRIPTION OF WORK

A. The work under this section shall cover providing and installing all FRP weir as shown on the contract drawings and specified herein. The work shall include all labor and materials necessary to provide a complete weir.

1 1.04 RELATED WORK ELSEWHERE

- 2 A. Procurement and Contracting Requirements - Division 00 (All Sections)
- 3 B. Submittals - Division 01
- 4 C. Cast-in-Place Concrete - Division 03
- 5 D. Metal Fabrications - Division 05

6 1.05 SUBMITTALS

- 7 A. Contractor shall submit such product literature and catalog cuts of materials to be
- 8 supplied to relate these materials to the specifications. Information shall be in
- 9 conformance with requirements of Submittals - Division 01 of these specifications.
- 10 B. Submittals should include all materials, finishes and dimensions.
- 11 C. The Contractor shall provide Manufacturer Certificate of Compliance and other
- 12 submittal information specified.

13 1.06 QUALITY CONTROL SUBMITTALS

- 14 A. Manufacturer's Certificate of Compliance.
- 15 B. Special shipping, storage and protection and handling instructions.
- 16 C. Manufacturer's written/printed installation instructions.
- 17 D. A list of three installations of comparable size in operation for at least three years.
- 18 E. Certified test reports of the physical and mechanical properties of the product. Each
- 19 panel shall have the following minimum physical properties:

<u>Method</u>	<u>Test</u>	<u>Min. Value</u>
ASTM D-638	Tensile Strength	25,000 psi
ASTM D-790	Flexural Strength	25,000 psi
ASTM D-790	Flexural Modulus	$1.4 \times 10^6$ psi
ASTM D-2583	Barcol Hardness	45
ASTM D-570	Water Absorption	0.2%

27 1.07 ACCEPTABLE MANUFACTURERS

- 28 A. FRP Weirs shall be manufactured by NEFCO, Inc. or equal.

1 1.08 GENERAL

- 2 A. Materials and manufacture shall conform to these specified hereinafter.
- 3 B. Procedure used in determining the properties listed shall be in accordance with the
- 4 ASTM Standards, Part 35, using the method designated above. Hardness tests shall
- 5 be made on the resin rich surfaces of the test sample. Test samples shall be of type,
- 6 preparation and conform to the requirements of ASTM test method.
- 7 C. Weir plates and baffle plates produced from fabricated plate stock with cut edges,
- 8 notches, etc., will not be acceptable.

9 1.09 WEIR PLATES, BAFFLE PLATES, BUTT PLATES, WASHERS, AND SUPPORT

10 BRACKETS

- 11 A. All shall be Fiberglass Reinforced Polyester Plastic molded by the Matched-Dye
- 12 method to produce uniform, smooth surfaces. Through the use of "Low Profile"
- 13 resin systems, all surfaces shall be smooth, resin rich, free of voids and porosity,
- 14 without dry spots, crazes, or unreinforced areas and shall provide for increased
- 15 corrosion resistance and weathering.
- 16 B. Laminate shall contain a glass content of  $30 \pm 2$  percent using Type "E" glass with
- 17 chrome or silane finish. Powdered reinforcements shall consist of  $47.5 \pm 1\%$  of resin
- 18 mixture. Final laminate thickness shall be within  $\pm 10$  percent of the nominal
- 19 specified thickness.

20 1.10 WEIR PLATES

- 21 A. Weir plates shall be sharp crested and a minimum of 1/4 inch nominal thickness and
- 22 shall be blue-green in color. Thicker weir plates may be required due to vertical
- 23 adjustment and future head requirements. Each weir plate shall have sufficient depth
- 24 to account for future vertical adjustments and head conditions. Each weir plate shall
- 25 be provided with a total overall length as indicated on drawings.
- 26 B. Oversized mounting holes in the weir plates shall be provided for vertical adjustment
- 27 of at least 6-inches, 3-inches up or down from the initial elevations shown on the
- 28 drawings. Where the bottom of concrete structure that weirs are mounted to may
- 29 limit weir adjustment, the concrete shall be used in lieu of the future 6-inches
- 30 downward adjustment limits. Each weir plate shall be provided with FRP washers of
- 31 sufficient diameter and shape to completely cover slotted mounting holes. FRP
- 32 washers shall be sufficient diameter to prevent short circuiting. Mounting holes shall
- 33 be a minimum of 12-inches on center to provide for vertical or horizontal adjustment.
- 34 Mounting hole spacing less than 12-inches o.c. may be required due to vertical
- 35 adjustment and future head requirements.

- 1 C. Weir plates shall be secured to concrete structure with 1/2 inch diameter 18-8  
2 stainless steel anchor bolts. Ends of weir plates shall be secured with 6 inch x 9 inch  
3 butt plates arranged to allow for horizontal expansion.
- 4 D. Where weir plates are of non-standard length or non-standard mounting hole  
5 configuration, such machined or cut edges shall be resin sealed with seal mix.
- 6 E. All expansion anchors, nuts, bolts, washers and other hardware shall be Type 316  
7 stainless steel and shall be furnished by the weir plate supplier.

## 8 PART 2 CONSTRUCTION METHODS

### 9 2.01 INSTALLATION

- 10 A. The installation contractor shall field verify existing dimensions and install the weir  
11 in accordance with the Contract Drawings, approved shop drawings and  
12 manufacturer's recommendations. Field cutting of plates will be allowed to complete  
13 the structure. All field cut or drilled edges shall be sealed per the manufacturer's  
14 recommendations. All of the fasteners required for installation shall be supplied by  
15 the weir manufacturer.
- 16 B. Weir shall be carefully aligned and leveled to the elevations shown on the drawings.  
17 In the completed installation, no variation greater than 1/16" shall exist between the  
18 ends of the weir plate or between adjacent sections if the weir is supplied in more  
19 than one piece. The installation contractor shall apply a suitable sealant between the  
20 weir and the wall to prevent the flow of liquid between the weir and the tank wall.

### 21 2.02 WARRANTY

- 22 A. Manufacturer shall warrant the weir plate to be free of defects in materials and  
23 workmanship for a period of one year after the date of Substantial Completion.  
24

25 END OF SECTION